ABSTRACT OF THE DISCLOSURE

A method for finding an extrema for an n-dimensional array having a plurality of processing elements, the method comprises determining within each of the processing elements a dimensional extrema for a first dimension of the n-dimensional array, wherein the dimensional extrema is related to one or more local extrema of the processing elements in the first dimension, determining within each of the processing elements a next dimensional extrema for a next dimension of the n-dimensional array, wherein the next dimensional extrema is related to one or more of the first dimensional extrema, and repeating the determining within each of the processing elements a next dimensional extrema for each of the n-dimensions, wherein each of the next dimensional extrema is related to a dimensional extrema from a previously selected dimension.